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SEARCH REQUEST FORM

Requester's Full Name: JANE ZARA Examiner # : 77512 Date: 3-25-05

Art Unit: 1635 Phone Number: 2-0765 Serial Number: 09/355,254

Location (Bldg/Room#): 2D28 (Mailbox #): 2C18 Results Format Preferred (circle): PAPER DISK

****

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Pharm Compos.

Inventors (please provide full names): H. Wagner et al.

Earliest Priority Date: (2) 2-22-00

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only ***Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.***

Please Search Seq ID No 8-14, 16, 17, 19-23

- Size limit to ~~100~~ 60 NT's.
- No Size limit.

Please Search Interference & regular Data Bases.

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Set     Items   Description
S1       3910   ANTIGEN? (S) CPG
S2   22714200   1 NOT PD=>1998
S3       2601   S1 NOT PD>1998
S4       1099   RD (unique items)
S5        316   S4 AND (IMMUNOMOD? OR TH1 OR TH2)
S6         94   S5 AND PHARMAC?
S7         94   S6 NOT PD>1997
S8         33   S7 AND (POLYNUCLEOTIDE? OR OLIGONUCLEOTIDE?)
S9          0   S5 AND T(TRANSCRIPTION (W) FACTOR?)
S10         6   S5 AND (TRANSCRIPTION (5N) FACTOR?)
S11       169   S1 AND (TRANSCRIPTION (6N) FACTOR?)
S12        96   RD (unique items)
S13      1218   S1 AND (IMMUNOMOD? OR TH1 OR TH2)
S14        16   S12 AND (IMMUNOMOD? OR TH1 OR TH2)
>>>KWIC option is not available in file(s): 399

 14/3,K/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2005 BIOSIS. All rts. reserv.

0014351177   BIOSIS NO.: 200300308666
Divergent synthetic nucleotide motif recognition pattern: Design and
  development of potent immunomodulatory oligodeoxyribonucleotide
  agents with distinct cytokine induction profiles.
AUTHOR: Kandimalla Ekambar R; Bhagat Lakshmi; Wang Daqing; Yu Dong; Zhu
  Fu-Gang; Tang Jimmy; Wang Hui; Huang Ping; Zhang Ruiwen; Agrawal Sudhir
  (Reprint)
AUTHOR ADDRESS: Hybridon, Inc., 345 Vassar Street, Cambridge, MA, 02139,
  USA**USA
AUTHOR E-MAIL ADDRESS: sagrawal@hybridon.com
JOURNAL: Nucleic Acids Research  31 (9): p2393-2400 May 1, 2003 2003
MEDIUM: print
ISSN: 0305-1048 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Divergent synthetic nucleotide motif recognition pattern: Design and
  development of potent immunomodulatory oligodeoxyribonucleotide
  agents with distinct cytokine induction profiles.
ABSTRACT: Unmethylated CpG dinucleotides present within certain
  specific sequence contexts in bacterial and synthetic DNA stimulate
  innate immune responses and induce cytokine secretion. Recently, we
  showed that CpG DNAs containing two 5'-ends, immunomers, are more
  potent in both regards. In this study, we show that an immunomer
  containing a synthetic CpR motif (R=2'-deoxy-7-deazaguanosine) is a
  potent immunostimulatory agent. However, the profile of cytokine
  induction is different from that with immunomers containing a natural
    ***CpG***   motif. In general, a CpR immunomer induced higher interleukin
  (IL)-12 and lower IL-6 secretion. Compared with conventional   ***CpG***
  DNAs, both types of immunomers showed a rapid and enhanced activation of
  the   ***transcription***     ***factor***   NF-kappaB in J774 cells. NF-kappaB
  activation by CpG DNA corresponded to degradation of IkappaBalpha
  in J774 cells. All three immunostimulatory oligonucleotides activated the
  p38 mitogen-activated protein kinase pathway as expected. Immunomers
  containing CpG and CpR motifs showed potent reversal of the
  antigen-induced Th2 immune response towards a Th1 type
  in   ***antigen***  -sensitized mouse spleen cell cultures. Immunomers
  containing a CpR motif showed significant antitumor activity in nude mice
  bearing MCF-7 human breast cancer and U87MG...
```

14/3,K/2 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

13239875 Genuine Article#: 861BX Number References: 42
Title: Suppressive oligodeoxynucleotides inhibit **Th1** differentiation by blocking IFN-gamma- and IL-12-mediated signaling
Author(s): Shirota H; Gursel M; Klinman DM (REPRINT)
Corporate Source: US FDA,Ctr Biol Evaluat & Res, Sect Retroviral Immunol,Bldg 29A Room 3 D10/Bethesda//MD/20892 (REPRINT); US FDA,Ctr Biol Evaluat & Res, Sect Retroviral Immunol,Bethesda//MD/20892(Klinman@cber.fda.gov)
Journal: JOURNAL OF IMMUNOLOGY, 2004, V173, N8 (OCT 15), P5002-5007
ISSN: 0022-1767 Publication date: 20041015
Publisher: AMER ASSOC IMMUNOLOGISTS, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

Title: Suppressive oligodeoxynucleotides inhibit **Th1** differentiation by blocking IFN-gamma- and IL-12-mediated signaling
Abstract: Repetitive TTAGGG motifs present at high frequency in mammalian telomeres can suppress ***Th1*** -mediated immune responses. Synthetic oligonucleotides (ODN) containing TTAGGG motifs mimic this activity and have proven effective in the prevention/ treatment of certain **Th1** -dependent autoimmune diseases. This work explores the mechanism by which suppressive ODN block the induction of ***Th1*** immunity. Findings indicate that these ODN inhibit IFN-gamma-induced STAT1 phosphorylation and IL-12-induced STAT3 and STAT4 phosphorylation. As a result, T-bet expression is reduced as is the maturation of naive CD4(+) cells into ***Th1*** effectors. These changes indirectly support the generation of ***Th2*** -dominated immune responses. Suppressive ODN may thus represent a novel approach to influence the **Th1**: ***Th2*** balance in vivo.
...Identifiers--T-CELL-CLONE; INDUCED IMMUNE ACTIVATION; STIMULATORY **CPG** MOTIFS; BACTERIAL-DNA; TYROSINE PHOSPHORYLATION; **TRANSCRIPTION FACTOR**; INDUCED ARTHRITIS; **ANTIGEN**; INTERLEUKIN-12; LYMPHOCYTES

14/3,K/3 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

07916621 EMBASE No: 1999390085
Antisense strategies to inhibit restenosis
Lee M.; Simon A.D.; Stein C.A.; Rabbani L.E.
Dr. L.E. Rabbani, Department of Medicine, Columbia University, College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032 United States
AUTHOR EMAIL: ler@columbia.edu
Antisense and Nucleic Acid Drug Development (ANTISENSE NUCLEIC ACID DRUG DEV.) (United States) 1999, 9/5 (487-492)
CODEN: ANADF ISSN: 1087-2906
DOCUMENT TYPE: Journal; Review
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 52

...in vitro SMC proliferation and migration. Moreover, PS oligodeoxynucleotides targeted against the genes c-myb, c-myc, cdc2 kinase, cdk2 kinase, and proliferating cell nuclear **antigen** (PCNA) when delivered adventitially or intraluminally inhibit in vivo neointimal

formation after balloon injury in both the rat carotid and porcine coronary artery models. The...
...manifest comparable in vivo inhibitory effects on neointimal formation in the rat carotid artery model of balloon injury. PS oligodeoxynucleotides also possess non-sequence-specific **immunomodulatory** effects, including the induction of interferon-gamma and the unmethylated **CpG** motif, which exhibits numerous ***immunomodulatory*** effects. Novel strategies to inhibit restenosis include the development of E2F transcription decoys that inhibit several cell cycle regulatory genes and diminish neointimal lesion formation...
DRUG DESCRIPTORS:
oligodeoxynucleotide phosphorothioate; protein kinase--endogenous compound --ec; cycline--endogenous compound--ec; oncoprotein--endogenous compound --ec; mitogenic agent; cytidine; chemoattractant; platelet derived growth **factor**; basic fibroblast growth **factor**; **transcription factor** e2f; protein bcl x--endogenous compound--ec

14/3,K/4 (Item 1 from file: 135)
DIALOG(R)File 135:NewsRx Weekly Reports

0000069856 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Novel DNA molecules are potent, selective immunoregulators
Immunotherapy Weekly, November 20, 2002, p.4

DOCUMENT TYPE: Editor's Choice LANGUAGE: English
RECORD TYPE: FULLTEXT
WORD COUNT: 438

The in vitro and in vivo research data show that these second-generation synthetic CpG **immunomodulators** have significantly increased metabolic stability as compared to the native compound, and induce higher secretion of disease fighting interleukin-12 (IL-12), with minimal induction...

...s scientists and their collaborators at the University of Alabama at Birmingham is a highly promising advance in the development of potent, specific and tolerable ***immunomodulatory*** molecules," said James B. Wyngaarden, MD, Hybridon. "There is a great demand in the medical community to use the body's immune system to fight...

...phosphorothioate backbone modification or poly(dG) structures that are commonly used, but have various limitations associated with them. The Hybridon molecules activate one of the **transcription factors**, NF-kB, that is responsible for upregulation of cytokine gene expression. However, by virtue of their design, they selectively induce higher IL-12 secretion with only minimal IL-6 secretion.

As a result of these properties, these novel **CpG** DNA molecules show potent antitumor activity in tumor xenograft models in nude mice. In addition, because of their ability to selectively induce IL-12 secretion...

...with vaccines and monoclonal antibodies for a number of other disease conditions, and as treatments for asthma and allergic conditions alone or in combination with ***antigens*** .

This article was prepared by Immunotherapy Weekly editors from staff and other reports.

14/3,K/5 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

15365304 PASCAL No.: 02-0053185
ETUDE DE LA REGULATION DE L'EXPRESSION DU GENE HUMAIN hGATA-3
(REGULATION OF THE HUMAN GATA-3 GENE)
GREGOIRE Jean-Marc; ROMEO Paul-Henri, dir
Universite de Paris 07, Paris, France
Univ.: Universite de Paris 07. Paris. FRA Degree: Th. doct.
1998-12; 1998 152 p.
Language: French Summary Language: French; English

... cellules souches hematopoietiques puis uniquement dans la lignee lymphocytaire T. Dans cette lignee, GATA-3 regulerait l'expression des differentes chaines du recepteur a l'**antigene** et serait impliquee dans la mise en place du phenotype ***Th2*** . Cette proteine est egalement un regulateur de l'embryogenese puisque sa perte de fonction entraine un phenotype letal a l'etat homozygote. Nous avons clone...

... la lignee lymphocytaire T et l'analyse de la sequence du promoteur du gene hGATA-3 a montre qu'il etait contenu dans un ilot **CpG**, structure generalement trouvee dans les genes d'expression ubiquitaire. De plus, par transfection stable, nous avons montre que l'unite de transcription hGATA-3 (20kb...

English Descriptors: Regulation(control); Gene expression; Human; Gene; **Transcription factor** GATA3; Hematopoietic cell; Embryonic development; T-Lymphocyte; Cell differentiation; Transcription repressor; Kidney; Promoter; Transcription

14/3,K/6 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0364877 DBR Accession No.: 2005-10581 PATENT
Modifying an immune response for treating hemorrhagic or neuropathologic viral infection by providing a host cell with a thioaptamer that modifies the activity of a DNA-binding protein involved in an immune response - involving vector-mediated gene transfer and expression in host cell for therapy
AUTHOR: GORENSTEIN D G; LUXON B A; HERZOG N; ARONSON J F; BEASLEY D; BARRET A; SHOPE R E; YANG X B
PATENT ASSIGNEE: UNIV TEXAS SYSTEM 2005
PATENT NUMBER: WO 200518537 PATENT DATE: 20050303 WPI ACCESSION NO.: 2005-196216 (200520)
PRIORITY APPLIC. NO.: US 472888 APPLIC. DATE: 20030523
NATIONAL APPLIC. NO.: WO 2004US16246 APPLIC. DATE: 20040520
LANGUAGE: English

...ABSTRACT: INDEPENDENT CLAIMS are also included for the following: (1) a method for shifting the type of helper T cell response; (2) a vaccine comprising an **antigen** and a thioaptamer specific for a DNA-binding protein where at least a portion of at least one nucleotide of the thioaptamer is thio-modified; (3) a composition comprising an adjuvant comprising one or more thioaptamers specific for a protein that modulates an innate immune response and at least one **antigen** ; (4) an adjuvant comprising one or more thioaptamers that bind a DNA-binding protein and modulate an immune response; (5) a T cell adjuvant comprising an aptamer specific for a **transcription factor** involved in T cell activation where at least a portion of at least one nucleotide is thiophosphate-modified; (6) a method of treating a hemorrhagic...

...an innate immune response. The immune response is a helper T cell immune response. The modification of the immune response is a shift in a ***Th1*** to ***Th2*** ratio. The immune response is to bacteria, fungus, cancer, self-**antigen**, heterologous **antigen** , retrovirus, hemorrhagic virus or neuropathologic virus. The immune response is in vivo. The thioaptamer modifies antibody production or cytotoxic T cell activation. Modifying an immune response comprises administering to a host a composition comprising an **antigen** and one or more partially thio-modified aptamers specific for a DNA-binding protein. The composition further comprises IL-1, 2, 3, 4, 5, 6...

... CSF), monocyte-macrophage CSF, granulocyte CSF, vascular epithelial growth factor (VEGF), angiogenin, transforming growth factor (TGF-alpha), fibroblast growth factor, angiostatin and/or endostatin. The **antigen** comprises lipid A, phospholipase A2, endotoxins, staphylococcal enterotoxin B, heat shock proteins (HSPs), carbohydrates, Rh factors, DNA, nucleotides, RNA, mRNA, MART, MAGE, BAGE, GAGE, DAGE, mutant p53 and/or tyrosinase. The aptamer stimulates **antigen** -presenting cells consisting of macrophages, dendritic cells or B cells. The aptamer activates an innate immune response. The aptamer activates an innate immune response through...

... patient suspected of being infected with a hemorrhagic virus and providing the patient with a therapeutic amount of a partially thio-modified aptamer specific for **transcription factor** involved in immune cell activation. The hemorrhagic virus comprises a virus comprising Lassa virus, Junin virus, Machupo virus, Guanarito virus, Sabia virus, Argentine hemorrhagic fever...

... patient suspected of being infected with a neuropathologic virus and providing the patient with a therapeutic amount of a partially thio-modified aptamer specific for **transcription factor** involved in immune cell activation. Enhancing vaccine efficacy comprises administering a composition comprising a partially thio-modified aptamer specific for a DNA binding protein and an ***antigen*** . The method further comprises a carrier molecule, comprising liposomes, microcapsules and/or microspheres. The immune response is to a cancer, allergic rhinitis, eczema, urticaria, anaphylaxis...

... Waldenstrom's macroglobulinemia, amyloidosis, chronic lymphocytic leukemia or non-Hodgkin's lymphoma. The partially thio-modified aptamer specific for a DNA binding protein and an **antigen** are a vaccine disposed in a vehicle suitable for oral, intramuscular, subcutaneous, intravenous or parenteral administration. Preferred Vaccine: The vaccine comprises an **antigen** and a thioaptamer specific for a DNA-binding protein where at least a portion of at least one nucleotide of the thioaptamer is thio-modified. The vaccine comprises one or more pharmaceutically acceptable salts. The ***antigen*** comprises a virus, a bacterium, a fungus, a cancer, a self-**antigen**, a heterologous **antigen** , a retrovirus, a hemorrhagic virus or a neuropathologic virus. The ***antigen*** comprises a West Nile Virus. The vaccine is lyophilized. The DNA-binding protein comprises AP-1. The vaccine is in a dissolved form. The ***antigen*** comprises a live-attenuated ***antigen*** . The ***antigen*** comprises a heat-inactivated ***antigen*** . Preferred Composition: The composition comprises an adjuvant comprising one or more thioaptamers specific for a protein that modulates an innate immune response and at least one **antigen** . The composition further comprises a physiologically acceptable aqueous vehicle. The composition is lyophilized. The ***antigen*** is in a particulate or dissolved form. The ***antigen*** comprises a live-attenuated or heat-inactivated ***antigen*** . The ***antigen*** comprises a pathogen-associated molecular pattern **antigen**, which

is a ***CpG*** molecule or polysaccharide. The thioaptamer comprises a concatenated aptamer comprising one or more concatenated thioaptamers. The protein that the thioaptamer binds specifically with comprises a...

... RBP-JK, AP-1, NF IL-6, SP-1, GRE or SRE. The thioaptamer comprises nucleic acid sequences for binding specifically to one or more **transcription factors** consisting of NF-KB, RBP-JK, AP-1, NF IL-6, SP-1, GRE or SRE. The thioaptamer comprises one or more of the aptamers...

... immune response comprises an innate or adaptive immune response. The adjuvant further comprises a physiologically acceptable aqueous vehicle and a live-attenuated or heat-inactivated ***antigen*** . The thioaptamer binds to downstream nuclear regulatory factors that transduce an intracellular signal from a Toll-Like receptor 2 or 4. ACTIVITY - Virucide. No biological...

14/3,K/7 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2005 American Chemical Society. All rts. reserv.

141393958 CA: 141(24)393958s JOURNAL
Impact of modifications of heterocyclic bases in CpG dinucleotides on their immune-modulatory activity
AUTHOR(S): Vollmer, Joerg; Weeratna, Risini D.; Jurk, Marion; Davis, Heather L.; Schetter, Christian; Wuellner, Meike; Wader, Tanja; Liu, Ming; Kritzler, Andrea; Krieg, Arthur M.
LOCATION: Coley Pharmaceutical, Langenfeld, Germany,
JOURNAL: J. Leukocyte Biol. (Journal of Leukocyte Biology) DATE: 2004
VOLUME: 76 NUMBER: 3 PAGES: 585-593 CODEN: JLBIE7 ISSN: 0741-5400
LANGUAGE: English PUBLISHER: Federation of American Societies for Experimental Biology

14/3,K/8 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2005 American Chemical Society. All rts. reserv.

141337728 CA: 141(20)337728e PATENT
Microparticles comprising biodegradable polymers with adsorbent surfaces for absorbing tumor antigen, methods of making same, and therapeutic uses thereof
INVENTOR(AUTHOR): O'Hagan, Derek
LOCATION: USA
PATENT: U.S. Pat. Appl. Publ. ; US 20040202680 A1 DATE: 20041014
APPLICATION: US 357303 (20030203) *US PV36316 (19970130) *US PV69749 (19971216) *US 15652 (19980129) *US 124533 (19980729) *US 285855 (19990402) *WO 99US17308 (19990729) *US 581772 (20000615)
PAGES: 20 pp., Cont.-in-part of U.S. Ser. No. 581,772. CODEN: USXXCO
LANGUAGE: English CLASS: 424277100; A61K-009/50A; A61K-009/14B; A61K-009/16B; A61K-039/00B; C07H-021/04B

14/3,K/9 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2005 American Chemical Society. All rts. reserv.

141105241 CA: 141(7)105241n PATENT
Viral antigen encoded by CpG-optimized plasmid vector for immunization against viral infection especially AIDS
INVENTOR(AUTHOR): Kent, Stephen J.; Purcell, Damian F.; Boyle, David B.; Ramsay, Alistair; Thomson, Scott; Ramshaw, Ian A.

LOCATION: Australia
ASSIGNEE: The University of New South Wales
PATENT: PCT International ; WO 200456391 A1 DATE: 20040708
APPLICATION: WO 2003AU1705 (20031219) *AU 20022002953556 (20021220) *AU 20032003905067 (20030917)
PAGES: 280 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-039/21A; A61K-039/395B; A61K-039/02B; A61P-031/12B; A61P-031/18B
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ; SD ; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

14/3,K/10 (Item 4 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

140058003 CA: 140(5)58003d JOURNAL
Antigenic Epitopes Fused to Cationic Peptide Bound to Oligonucleotides Facilitate Toll-Like Receptor 9-Dependent, but CD4+ T Cell Help-Independent, Priming of CD8+ T Cells
AUTHOR(S): Schirmbeck, Reinhold; Riedl, Petra; Zurbriggen, Rinaldo; Akira, Shizuo; Reimann, Joerg
LOCATION: Department of Medical Microbiology and Immunology, University of Ulm, Ulm, Germany, D-89081
JOURNAL: J. Immunol. (Journal of Immunology) DATE: 2003 VOLUME: 171
NUMBER: 10 PAGES: 5198-5207 CODEN: JOIMA3 ISSN: 0022-1767 LANGUAGE: English PUBLISHER: American Association of Immunologists

14/3,K/11 (Item 5 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

138135825 CA: 138(10)135825m PATENT
Therapeutic application of HIV-1 Tat protein
INVENTOR(AUTHOR): Ensoli, Barbara
LOCATION: Italy
ASSIGNEE: Istituto Superiore di Sanita
PATENT: European Pat. Appl. ; EP 1279404 A1 DATE: 20030129
APPLICATION: EP 2001118114 (20010726)
PAGES: 98 pp. CODEN: EPXXDW LANGUAGE: English CLASS: A61K-039/00A; A61K-039/39B; A61P-035/00B; A61P-031/00B DESIGNATED COUNTRIES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; NL; SE; MC; PT; IE; SI; LT; LV; FI; RO; MK; CY; AL; TR

14/3,K/12 (Item 6 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

137336724 CA: 137(23)336724f PATENT
Vaccine comprising human immunodeficiency virus antigens and human papillomavirus and/or herpes simplex virus antigens
INVENTOR(AUTHOR): Debrus, Serge; Mathy, Nathalie Louise; Voss, Gerald
LOCATION: Belg.
ASSIGNEE: Glaxosmithkline Biologicals S.A.

PATENT: PCT International ; WO 200287614 A2 DATE: 20021107
APPLICATION: WO 2002EP4966 (20020425) *GB 200110431 (20010427)
PAGES: 34 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: A61K-039/295A; A61P-031/18B DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM ; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

14/3,K/13 (Item 7 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

136400308 CA: 136(26)400308g JOURNAL
Role of mitogen-activated protein kinases in CpG DNA-mediated IL-10 and IL-12 production: central role of extracellular signal-regulated kinase in the negative feedback loop of the CpG DNA-mediated Th1 response
AUTHOR(S): Yi, Ae-Kyung; Yoon, Jae-Geun; Yeo, Seon-Ju; Hong, Soon-Cheol; English, B. Keith; Krieg, Arthur M.
LOCATION: Children's Foundation Research Center, Le Bonheur Children's Hospital, University of Tennessee Health Science Center, Memphis, TN, 38103 , USA
JOURNAL: J. Immunol. DATE: 2002 VOLUME: 168 NUMBER: 9 PAGES: 4711-4720 CODEN: JOIMA3 ISSN: 0022-1767 LANGUAGE: English PUBLISHER: American Association of Immunologists

14/3,K/14 (Item 8 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

136261808 CA: 136(17)261808e PATENT
New Toll-like receptors of mouse and their use in high throughput screening for CpG methylated DNA for use as immunomodulator
INVENTOR(AUTHOR): Bauer, Stefan; Lipford, Grayson; Wagner, Hermann
LOCATION: Germany,
ASSIGNEE: Coley Pharmaceutical G.m.b.H.
PATENT: PCT International ; WO 200222809 A2 DATE: 20020321
APPLICATION: WO 2001US29229 (20010917) *US PV233035 (20000915) *US PV263657 (20010123) *US PV291726 (20010517) *US PV300210 (20010622)
PAGES: 194 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C12N-015/00A
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; PH; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL ; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

14/3,K/15 (Item 9 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

135166007 CA: 135(12)166007p PATENT
Pharmaceutical composition for immunomodulation and preparation of

vaccines comprising an antigen and an immunogenic oligodeoxynucleotide and a polycationic polymer as adjuvants
INVENTOR(AUTHOR): Lingnau, Karen; Mattner, Frank; Schmidt, Walter; Birnstiel, Max; Buschle, Michael
LOCATION: Austria
ASSIGNEE: Cistem Biotechnologies Gmbh
PATENT: PCT International ; WO 200154720 A1 DATE: 20010802
APPLICATION: WO 2001EP87 (20010105) *AT 2000129 (20000128)
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DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CR; CU; CZ; DE; DK; DM; DZ; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG ; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD; TG

14/3,K/16 (Item 1 from file: 444)
DIALOG(R)File 444:New England Journal of Med.

00121018

Advances in Immunology: Allergy and Allergic Diseases (First of Two Parts) (Review Articles)

Kay, A.B.
The New England Journal of Medicine
Jan 4, 2001; 344 (1),pp 30-37
LINE COUNT: 00371 WORD COUNT: 05125

TEXT
...vitro their T cells respond to the allergen with a moderate degree of proliferation and the production of interferon-(gamma) by type 1 helper T (***Th1***) cells. (Ref. 5-7) Persons with atopy, by contrast, have an exaggerated response characterized by the production of allergen-specific IgE antibodies; they have elevated...

...common aeroallergens on skin-prick tests. T cells from their blood respond to allergens in vitro by inducing cytokines produced by type 2 helper T (***Th2***) cells (i.e., interleukin-4, 5, and 13), (Ref. 5,7) rather than cytokines produced by **Th1** cells (interferon-(gamma) and interleukin-2). There are many exceptions to this rule, but the immunopathological hallmark of allergic disease is the infiltration of affected tissue by ***Th2*** cells. (Ref. 8-10...

...fetus are primed by common environmental allergens that cross the placenta. As a result, the immune response of virtually all newborn infants is dominated by ***Th2*** cells. (Ref. 11) It has been proposed that during subsequent development the normal (i.e., nonatopic) infant's immune system shifts in favor of a **Th1**-mediated response to inhaled allergens (a process termed ``immune deviation''), (Ref. 12) whereas in the potentially atopic infant there is a further increase in **Th2** cells that were primed in utero. Microbes are probably the chief stimuli of protective ***Th1*** -mediated immunity. Macrophages that engulf microbes secrete interleukin-12, which induces **Th1** cells and natural killer cells to produce interferon-(gamma), thereby shifting the immune system into an ``allergy-protective'' ***Th1*** -mediated response. Other factors may also

influence whether **Th1** or **Th2** cells dominate the response, including the amount of allergen, the duration of exposure to the allergen, and the avidity of allergen-specific interactions between T cells and ***antigen*** -presenting cells (Ref. 13,14) (Fig. 1).|*Figure 1.-Immunologic and Cellular Factors Regulating the Expression of ***Th1*** and ***Th2*** Cells.Whether the immune response is dominated by ***Th1*** or **Th2** cells is dependent on interleukin-12 and interleukin-4, respectively, as well as on the avidity of interactions between T cells and **antigen**-presenting cells and the amount of allergen to which the immune system is exposed (***antigen***). (Ref. 13,14) In addition, the presence of cytidine-phosphate-guanosine (**CpG**) repeats derived from bacteria favors the **Th1** phenotype, whereas the presence of **transcription factors** such as GATA-3 favors the **Th2** phenotype, (Ref. 15) as does the presence of c-maf and prostaglandin E(sub 2) (PGE(sub 2)). Nitric oxide favors the expression of ***Th2*** cells by being less inhibitory to **Th2** cells than **Th1** cells, whereas in humans interleukin-10 and transforming growth factor (beta) (TGF-(beta)) generally dampen the responses of both types of cells. Interferon-(gamma) (IFN-(gamma)) inhibits **Th2**-mediated responses; both interleukin-12 and interleukin-18 release interferon-(gamma) from T cells. Interleukin-4 inhibits the expression of **Th1** cells and promotes **Th2**-mediated responses. Green arrows indicate stimulatory effects, and red arrows inhibitory effects, of the cytokines *.**FIGURE OMITTED...

...a Western lifestyle accounts for the increases in prevalence. Perhaps in Western countries the developing immune system is deprived of the microbial antigens that stimulate **Th1** cells, because the environment is relatively clean and the use of antibiotics for minor illnesses in early life is widespread. (Ref. 18...

...in populations exposed to Helicobacter pylori, Toxoplasma gondii, and hepatitis A virus. By producing an environment rich in interleukin-12, these microbes could drive a ***Th1*** -mediated response. This mechanism may explain why in Europe and Africa, farming or living in a rural community, which increases the likelihood of exposure to...

...Other factors that may favor the ***Th2*** phenotype in infants include diet and being born when pollen counts are high. (Ref. 22) Furthermore, atopic allergic diseases are less common in younger children...

...tobacco smoke, and air pollutants. (Ref. 27) These factors, alone or in combination, may alter immunoregulatory mechanisms at mucosal surfaces in ways that promote a ***Th2*** -mediated allergic inflammatory response (Fig. 2).|*Figure 2.-Factors Influencing the Development of Atopy and Allergic Inflammation Mediated by ***Th2*** Cells (Atopic Allergic Disease).The induction of atopy is dependent on interactions between genes and the environment. The induction of atopic allergic disease may require...the gene for the epsilon class of the constant region (C(sub (epsilon))) of the immunoglobulin heavy chain. The production of IgE also requires two **transcription factors**, nuclear **factor** (kappa)B and STAT-6; the former pathway involves the costimulatory molecules CD40 and the CD40 ligand (CD154), and the latter is activated when interleukin... Allergens, including the products of some infectious microorganisms (e.g., Aspergillus fumigatus) and helminthic parasites, evoke **Th2**-mediated responses that are characterized by high serum levels of IgE, whereas other bacterial **antigens** (such as those associated with Listeria monocytogenes and Mycobacterium tuberculosis) elicit a **Th1**-mediated response that is dominated by cellular immunity (the appearance of cytotoxic T cells and delayed hypersensitivity). In this latter class of organisms, the DNA contains repeating sequences of cytosine and guanosine nucleosides called ***CpG*** repeats. These ***CpG*** repeats can bind to receptors on **antigen**-presenting cells and trigger the release of interleukin-12. This cytokine, which is produced almost exclusively by

antigen-presenting cells, drives and maintains the **Th1**-mediated response. Furthermore, the interferon-(gamma) produced by activated ***Th1*** cells (Ref. 39) and interleukin-18, produced by macrophages, (Ref. 39) join forces to suppress the production of IgE antibodies. (Ref. 40) Therefore, at least...

...interferon-(gamma), interleukin-12, and interleukin-18, either alone or in combination, have therapeutic potential for inhibiting the synthesis of IgE. Furthermore (as discussed below), ***CpG*** repeats may redirect allergens to produce a **Th1**-mediated, rather than a **Th2** -mediated, immune response...initiating and controlling allergic inflammation. Dendritic cells and cutaneous Langerhans' cells are particularly important in asthma and atopic eczema, respectively. They present antigen to CD4+ **Th2** cells in an MHC class II-restricted fashion. Overproduction of the granulocyte-macrophage colony-stimulating factor in the airway mucosa of patients with asthma enhances...

...of macrophages. (Ref. 12) Alveolar macrophages obtained from patients with asthma by bronchoalveolar lavage present allergen to CD4+ T cells and stimulate the production of ***Th2*** -type cytokines, (Ref. 49) whereas alveolar macrophages from control subjects do not...

... ***Th2*** -type cytokines such as interleukin-4, 5, 9, and 13 influence a wide range of events associated with chronic allergic inflammation. Interleukin-4 and interleukin...

...since they produce fibrogenic growth factors and matrix metalloproteinase, which remodel airway tissue in asthma. (Ref. 52)|*Table 1.-The Role of Cytokines Produced by ***Th2*** Cells in Chronic Allergic Inflammation *.**TABLE OMITTED

CITED REFERENCES

...natural exposure to dust mite and grass pollen in atopic and non-atopic individuals. Clin Exp Allergy 1989;19:545-9.

5. Romagnani S. Human ***TH1*** and ***TH2*** subsets: doubt no more. Immunol Today 1991;12:256-7.

6. Ebner C, Schenk S, Najafian N, et al. Nonallergic individuals recognize the same T...

...Macaubas C, Holt BJ, et al. Transplacental priming of the human immune system to environmental allergens: universal skewing of initial T cell responses toward the ***Th2*** cytokine profile. J Immunol 1998;160:4730-7.

12. Holt PG, Macaubas C, Stumbles PA, Sly PD. The role of allergy in the development of asthma. Nature 1999;402:Suppl:B12-B17.

13. Constant SL, Bottomly K. Induction of ***Th1*** and ***Th2*** CD4+ T cell responses: the alternative approaches. Annu Rev Immunol 1997;15:297-322.

14. Rogers PR, Croft M. Peptide dose, affinity, and time of differentiation can contribute to the ***Th1*** / ***Th2*** cytokine balance. J Immunol 1999;163:1205-13.

15. Caramori G, Lim S, Ciaccia A, Fabbri LM, Barnes PJ, Adcock IM. GATA **transcription factors** expression in T cells, monocytes and bronchial biopsies of normal and asthmatic subjects. Am J Respir Crit Care Med 1999;157:Suppl:A908. abstract.

16...and regulation of the IgE response. Nature 1999;402:Suppl:B18-B23.

39. Robinson D, Shibuya K, Mui A, et al. IGIF does not drive ***Th1*** development but synergizes with IL-12 for interferon-(gamma) production and activates IRAK and NF(kappa)B. Immunity 1997;7:571-81.

40. Yoshimoto T...

...J Immunol 1999;163:3976-84.

45. Robinson DS, Hamid Q, Bentley A, Ying S, Kay AB, Durham SR. Activation

of CD4+ T cells, increased **TH2**-type cytokine mRNA expression, and eosinophil recruitment in bronchoalveolar lavage after allergen inhalation challenge in patients with atopic asthma. J Allergy Clin

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8/3,K/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

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Cancer immunotherapy with CpG-ODN
ORIGINAL LANGUAGE TITLE: Immunotherapie des cancers par **oligonucleotides** immunostimulants
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ISSN: 0767-0974
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: French

ORIGINAL LANGUAGE TITLE: Immunotherapie des cancers par **oligonucleotides** immunostimulants

ABSTRACT: Bacterial DNA and synthetic oligodeoxynucleotides containing **CpG** motifs (**CpG**-ODN) are the ligands for the Toll-like receptor 9 (TLR9), which is expressed by B-lymphocytes and a subset of dendritic cells. ***CpG*** -ODN are strong activators of both innate and specific immunity, and drive the immune response towards the **Th1** phenotype. Given the promising results obtained in several experimental models of allergies or infections, **CpG**-ODN are now entering clinical trials for these diseases. In cancer, promising approaches combined **CpG**-ODN with tumor **antigens**, monoclonal antibodies or dendritic cells. When no relevant tumor ***antigen*** is known, **CpG**-ODN can be used alone to activate locally the innate immunity and trigger a tumor-specific immune response, overcoming the need for the identification of a tumoral ***antigen*** . Preclinical models have shown impressive results and several clinical trials are on-going worldwide in melanoma, lymphoma, renal carcinoma, breast cancer and glioblastoma.